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NOTES ON GEOGRAPHIC DISTRIBUTION

Amphibia, Anura, Cycloramphidae, *Odontophrynus lavillai*: First record for Brazil and geographic distribution map

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The Neotropical genus *Odontophrynus* currently consists of 11 species distributed in southern and eastern South America (Frost 2008). The widest distributed *O. americanus* group is constituted by diploid and tetraploid cryptic species very difficult to distinguish morphologically, which show a complex geographic pattern including areas of syntopy and sympatry (Barrio and Pistol de Rubel 1972; Rosset et al. 2006 and references therein).

Odontophrynus lavillai was described from Sierra de Guasayán, Santiago del Estero province, Argentina (Cei 1985). Later, based on both adult and tadpole morphology, this species was recorded from other localities in the Argentinean provinces of Chaco, Córdoba, Formosa, Jujuy, Santa Fe, Santiago del Estero, and Salta (Kacoliris et al. 2006; Rosset et al. 2006 and references therein). In Bolivia, *O. lavillai* was recorded in Santa Cruz department, although the presence of this species is also expected in Chuquisaca and Tarija departments (De la Riva et al. 2000). In Paraguay, this species was recorded in Alto Paraguay, Boquerón, and Presidente Hayes departments (Brusquetti and Lavilla 2006; Rosset et al. 2006). All of these records associated *O. lavillai* to both Chaco and Humid Chaco Ecoregion, although some populations were found in marginal Yungas (Olson et al. 2001; World Wildlife Fund 2008) (Figure 1).

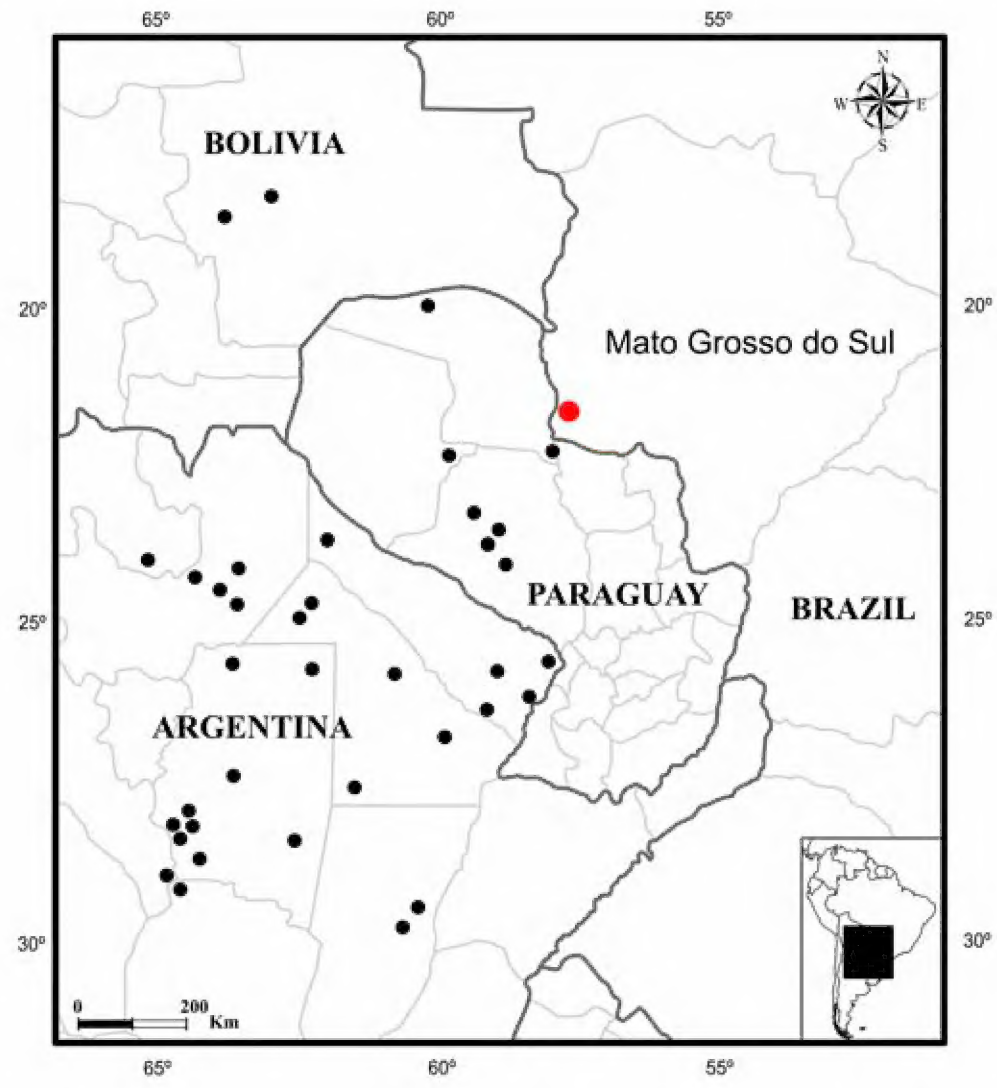

Figure 1. Geographic distribution of *Odontophrynus lavillai*. Records after Kacoliris et al. (2006), Rosset et al. (2006), and references therein (solid circles); new record for Porto Murtinho, Mato Grosso do Sul, Brazil (red circle).

In this work we report the first record of *O. lavillai* for Brazil. One adult male specimen that morphologically resembled this species was

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found in the Célio F. B. Haddad Collection identified as *Odontophrynus americanus* with the acronym CFBH 2496 (Figure 2). This specimen was collected by M. I. M. Bordenaruke from Fazenda Fronteira, Município Porto Murtinho (ca. 21°42' S; 57°53' W), Mato Grosso do Sul State, Brazil. As other members of *O. lavillai*, this specimen has a heavily granular and glandular dorsum skin, transversally fused pairs of dorsal dark brown blotches, and lacking a light middorsal stripe (Barrio and Pistol de Rubel 1972; Cei 1985; Rosset 2008).

We therefore measured the major and minor diameters of the optical sections of the erythrocyte nuclei to calculate the nuclear volume, which has been considered the best estimator of the ploidy in the *O. americanus* species group (Rosset et al. 2006). The nuclear volume was calculated as $a\ b^2\ \pi\ /\ 6$, where a and b are the major and minor diameter of the erythrocyte nuclei, respectively. We used a photomicroscope OLYMPUS BX50F-3 at a magnification of 1000.

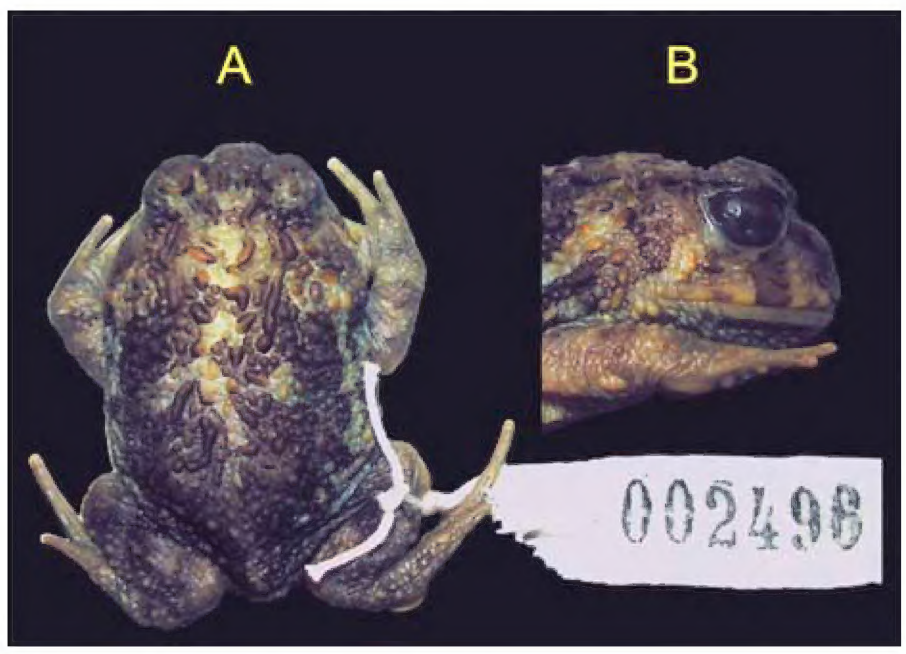

Figure 2. Dorsal (A) and lateral (B) views of the head of *Odontophrynus lavillai*, adult male (CFBH 2496), from Porto Murtinho, Mato Grosso do Sul, Brazil. Photo by D. Baldo.

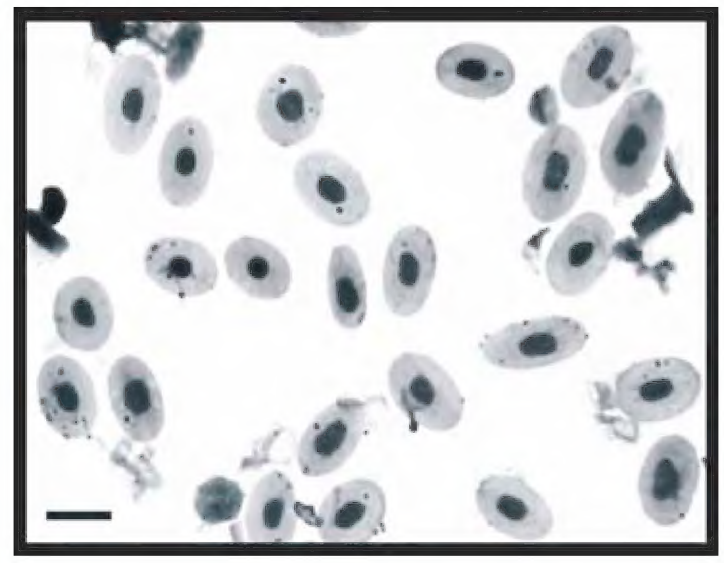

Figure 3. Photomicrograph of erythrocytes of diploid *Odontophrynus lavillai* (CFBH 2496). Bar represents 10 μm.

Erythrocytes found in this specimen are showed in Figure 3. We found a nuclear volume of 31.91 ± 10.56 μm^3 (n = 50) in the preserved specimen from Brazil. This value is among those found by Rosset et al. (2006) for diploid (23.6 ± 6.3 μm^3) and tetraploid (45.5 ± 11.2 μm^3) specimens, but it is close to the value found for the karyotyped *O. lavillai* (28.4 ± 7.7 μm^3) from Santiago del Estero province, Argentina. Moreover, the nuclear volume is < 34.35 μm^3, a value used by Rosset et al. (2006) for estimating the level of ploidy of the preserved specimens. Then, our specimen was determined as diploid, another character that allowed us to support that belongs to *O. lavillai*. Fazenda Fronteira, in Município Porto Murtinho, belonging to the Humid Chaco Ecoregion, and it is found near the limits of both Pantanal and Cerrado Ecoregions (Olson et al. 2001; World Wildlife Fund 2008). The present record extends the distribution range of *O. lavillai* ca. 65 km northwards from Puerto Casado, Alto Paraguay department, Paraguay. The specimen reported herein was collected together with a specimen of *Trachycephalus venulosus* (CFBH 2497).

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Check List **5**(1): 032–034, 2009.
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NOTES ON GEOGRAPHIC DISTRIBUTION

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